



6869770

UVMO:003US
U.S. Serial No. 09/273,164
"Compositions and Methods for Early Pregnancy Diagnosis"
Inventors: Roberts et al.
Replacement Sheet

Consensus	MKWLVLGLV	AFSECIKIP	LR..KTMR.T	LS.KN.LNNF	LKE.AYRLSQ	IS.RGSNLT-	60 (2)
						▼ (1)	
boPAG 8	.....	.L.....	.TKM...QEA	IRE,QL,ED.	.D.QPHS...	H.DPDKKFS,	59
boPAG 2	.....	.L.....IL.	.KMM...L.E.	.RE..L....	.E.Q.....K	N---D.KI..	56
boPAG12	.....	.L.....IL.	.KM...L.E.	.RE..L....	.E.R.....K	K---D.KI..	56
boPAG11	.....F....	.....IML	.TKT....EI	WRE.KL..S.	.E.Q.N.M.D	D.ASDPK.S.	59
boPAG 9	.....I.....	.....	.QV.....K.	.G..M.K..	..HP.....	..F.....	59
boPAG10	.....G.....	.L...M.I..	.QM.....E.	.RERHL.T..	SE.HP.N...	KAANDG.IIY	60
boPAG 4	.....	.....	.RV...TK.	.G..M....	V..H.....	..F.....	59
boPAG 6	.....	.....	.RV.....NA	I.G..T...I	..H...P.	..F.....	59
boPAG 1	.....	.....	.RL.....NV	V.G..M....	..H..S...	..F.....	59
boPAG 3	..DD.....	.....	.RV.....N.	V.G..I...I	..HV.....	..F.....	59
boPAG 5	.....L TS.....IL.	.....	.TKV....K.	.E..M....	..Q.....	..S....I..	59
boPAG 7	.....	.....	.RV.....K.	.G..M....	...DP.....H	..F.....	59
Consensus	.HPLRN1.D.	.YVGNITGT	PPQEFQWFD	TGSSDLWVPS	I.C.S.AC.T	H.RFRH..SS	120 (62)
boPAG 8	S.Q.K.FQNA	V.F.T.....	.....N...	.....	VD.Q.PS.SK	.K...DPQK.T	119
boPAG 2	I.....YL.T	A.....	.....R...	..AN....C	.T.T.P..Y.	.KT.NPQN..	116
boPAG12	I...K.YL.M	A.....	.....R...	..A.....	.S.V.P..Y.	.KT.NLHN..	116
boPAG11	T.....AL.M	A.....	.....K.R...	.....	.K.I.P..H.	.IT.D.HK..	119
boPAG 9	I.....MNL	V.....	.....	.....	FCTM-P..SA	PVW..QLQ..	118
boPAG10	H....SYK.F	S.I..N...	.....L..	..S.....	.Y.Q.SS.YK	.NS.VPCN..	120
boPAG 4	I.....R.F	?.....	.....I..	..E.....	.F.N.ST.SK	.D....LE..	119
boPAG 6	.....R.L	F.....	.....I..	.....A.	.F.N.SS.AA	V....HG..	118
boPAG 1	T.....K.L	V.M.....	.....	..A.....	DF.T.P..S.	V....LQ..	119
boPAG 3	T.....K.L	I.....	.....	..F.....	DF.T.R..S.	V....LQ..	119
boPAG 5	I.....M.M	V...K....	.....	..E.....	VF.P.S..S.	I....LE..	119
boPAG 7	I.....R.I	F.....	.....I..	.....	.D.N.TS.A.	V....LQ..	119

FIG. 1A



Consensus	TFR, INKTF, I, YGSG, MKG	.L., DTVRIG	.LVSTDQPF	LS, EE-, GF,	...-, DGVLG	180 (120)
boPAG 8	..QPL, QKIE	LV, ...T...	V, GS, IQ...	N, IVN, I...	..QNGSS, VL	EQVPY, I... 179
boPAG 2	S, EVGSPIT	.F, ...IIQ,	F, GS, ...	N, ...PE, S...	..L, ...Y, ...D	SLP, F, I... 174
boPAG12	S, GQ, HQPIS	.S, ...P, IIQ,	F, GS, ...	N, ...LK, S...	..Q, ...Y, ...D	GAP, F, ... 174
boPAG11	...L, RRP, H	.L, ...M, N,	V, AY, ...	K, ...	..LQQ, F, ...D	NAP, F, ... 177
boPAG 9	..QP, ...T	.T, ...S, ...	F, AY, ...	D, ...	..V, ...Y, ...LE	GRN, Y, ... 176
boPAG10	..KA, ...I, N	TN, TATS, I,	Y, VY, ...	N, ...VA, ...	..LK, ...F, ...D	DVP, F, I... 178
boPAG 4	...LSRR, ...S	.T, ...R, IEA	L, V, H, ...	D, ...Q, ...	..CL, ...S, ...E	GMR, F, ... 177
boPAG 6	...P, ...R	.T, ...R, ...	V, V, H, ...	D, ...	..CLKD, S, ...K	GIP, F, I... 176
boPAG 1	...L, ...R	.T, ...R, ...	V, V, H, ...	N, ...	..I, ...Y, ...E	GRI, Y, ... 177
boPAG 3	...L, ...R	.T, ...R, ...	V, V, A, H, ...	D, ...	..V, ...Y, ...E	GRAY, ... 178
boPAG 5	..SGL, Q, ...S	.T, ...ST, ...	F, AY, ...	D, L, ...E, ...	..M, ...H, ...E	DLPF, ... 177
boPAG 7	...P, ...R	.I, ...R, N,	V, I, AY, ...	D, ...	..V, ...Y, ...A	HKRF, ...I... 177
Consensus	L, YP, ...S, ...G	APIFDNLKN	QGAISEPVFA	FLYS, ...EG	SVWMFGGV	DH, YYKGELNW, 240 (180)
boPAG 8	.A, ...SLAIQ,	TT, V, ...	REV, ...	...SRPENI	.T, ...	T, H, ...K, Q, I 239
boPAG 2	.AF, AMGIED	T, ...WS	H, F, ...	...NTNKP,	...	R, ...I 234
boPAG12	.A, ...SI, IK,	I, ...WS	...F, ...	...NTCQP,	...	R, ...I 234
boPAG11	.S, ...SLAVP,	T, ...K, Q	...I, ...	...TRKEN,	..L, L, ...	S, H, ...K, ...I 237
boPAG 9	.N, ...NI, FS,	...	...	...KNKQ,	...	Q, ...I 236
boPAG10	.G, ...RTIT,	.N, ...WK	.V, ...	...SQKEN,	...NR	A, ...V 238
boPAG 4	.S, ...TNI, PS,	...YK, ...	E, ...	...KDER,	...A, ...	R, ...I 237
boPAG 6	.S, ...NKTFS,	.F, ...K, ...	E, ...	...KDKQ,	...	R, ...V 236
boPAG 1	.N, ...NI, FS,	...K, ...	.R, ...	...KDER,	...	R, E, ...V 237
boPAG 3	.N, ...NI, FS,	...	...	IL, KDEQ,	...	R, E, ...V 238
boPAG 5	.N, ...DM, FIT	T, ...	...F, ...	...GKVK, ...	...	T, ...V 235
boPAG 7	.N, ...WNL, WSK	.M, ...K, ...	E, ...	...NI, ...	---	----- 213

FIG. 1B



Consensus	P..Q.G.W..	MDRISM.R.	VIACS.GC.A	LVDTGTS.I.	GP.RLV.NI.	KLI.A.P-.G	300 (239)
boPAG 8	.VT.ARF.QV	A.SSMT.NGN	.VG..Q..Q.	V.....LLV	..TH..TD.L	...NPN.ILN	299
boPAG 2	.VS.TSH.QI	S.NN...NGT	.T...C..E.	.L.....M.Y	..TK..T..H	..MN.RL.EN	293
boPAG12	.VS.TRY.QI	S.N...NGN	.T...R..Q.	.L.....M.H	..T..T..H	..MN.RH.Q.	293
boPAG11	.VS.TKS.LI	TV.....NGR	.G.EH..E.	.....L.H	..A.P.T..Q	.F.H.M..Y.	296
boPAG 9	.LIEA.E.RV	H.....K.T	.....D..E.	..H.....H.E	..G...N..H	R...RTR..FD	295
boPAG10	.VS.V.S.HI	NI.S...NGT	V..KR..Q.	SWIR.-RLSA	W.K.I.SK.Q	...H.R..ID	296
boPAG 4	.LMKA.D.SV	H.....K.K	.....G..K.	.....S.D.V	..ST..N..W	...G.T..Q.	296
boPAG 6	.LI.V.D.FV	H...TT.K.K	.....D..K.	.....D.V	..ST..N..W	...R.R..L.	295
boPAG 1	.LI.A.D.SV	H.....IE.K	I...D..K.	.....D.V	..R...N..H	R...G.I..R.	296
boPAG 3	.LIEA.D.II	H.....K.K	I...GS.E	I.....A.E	..RK..NK.H	...G.R..RH	297
boPAG 5	.LI.A.E.SL	H.....K.K	.....G..E	FY.....L.L	..R...N..Q	...G.T..Q.	294
boPAG 7	-----	-----T.N.E	.....E..A.	.....S.N.Q	..G.ID..Q	RI.G.T..R.	257
Consensus	SE...VSC.AV	..LPSIIIFTI	NGI.YPVP..	AYI.KDSRG.	C...F.....	---S..ET	360 (295)
boPAG 8	D.QML..D.I	NS..TLLL..	...V.....PD	Y..QRF.ERI	.FIS.QGGTE	ILKNLGTS..	359
boPAG 2	..YV...D..	KT..PV..N.	...D..LRPQ	...I.IQN-S	.RSV.QGGTE	...N..SLN.	348
boPAG12	..YV...D..	KT..PV..N.	...D..L.PQ	...T.AQN-F	.LSI.HGGTE	...T..SP..	348
boPAG11	..YM.L.PVI	SI..PV....	...D.S..RE	...Q.I.NSL	.LST.HGD-D	...T.---DQ	348
boPAG 9	.KHY...F.T	KY...T.I.	...K..MTAR	...F.....R	.YSA.KENTV	...R.TSR..	351
boPAG10	R.HV...Q.I	GT..PAV...	...D....AQ	...QSL.G-Y	.FSN.LVRPQ	...RVNES..	352
boPAG 4	..HY...S..	NS.....	KSNW.R..GQ	...L.....R	.FTA.KGHQ	...S..ST.M	352
boPAG 6	PQYF...S..	NT.....	...N.RL.AR	...H.....R	.YTA.KEHRF	...S..PI..	351
boPAG 1	..HY.P.SE.	NT...V...	...N.....GR	...L..D..R	.YTT.QENRV	...S..ST..	352
boPAG 3	.KYYI..S..	NT.....	...N..C.GR	..VL.....R	.YSM.QENKV	...S..ST..	353
boPAG 5	..HYI..F..	IS.....	...NI...AR	...H.....H	.YPT.KENTV	...ST..-T..	350
boPAG 7	.KYY...S..	NI.....	..VN....PR	...L.....H	.YTT.KEKRV	...RR.-T.S	313

FIG. 1C



388 (323)

Consensus	WILGDFLRL	YFSVDRGND	RIGLA.AV
boPAG 8	.....	.....Y.....N	.....P.A
boPAG 2	.....I...Q	.....K.R	.....P..
boPAG12	.....G...Q	.....R..	S.....-Q.
boPAG11	.....	.....Y.....N	.....P..
boPAG 9	.....A...R	.....	.....R..
boPAG10NP..
boPAG 4RK.TK.
boPAG 6L.....RR..
boPAG 1Y.....R..
boPAG 3VR..
boPAG 5QV-
boPAG 7V..E.....RR.

FIG. 1D

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375
376
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381
377
341



↓ (1)

Consensus	MKWLVLGLV	AFSECIVKIP	LRRVKTMRKT	LSGKNMLNMF	LKEHPYRLSQ	ISFR.SNLT	I 60 (3)	
OVPA G 4	.....F.....	.....DV.....	.....P.....	.....G.....	I. 60		
OVPA G 7	.....F.V.....	.....N.....	.....Y.....	.....D.....	V.. 60		
OVPA G 3	.....F.....	.....N.I.....	.....Y.....	.....D.....	V.. 60		
OVPA G 6	.....SI.....	.....E.....	.....A.....	.....G.....	60		
OVPA G 1	.....N.....	.....K.S.....	.....A.....	.....A.....	60		
OVPA G 5	.....SV.....	.....RV.....	.....MK.NV.QE.....	.....NE.SL.....	.....KY.....	A. N.T.N.KMAF	60
OVPA G 9	.....M.....	.....N P.....	.....M.....	.....A.....	.....GL.....	- 59	
OVPA G 2W..L.....IM.....TKT.....EI.....RE..L.....E.QAN.M.D D.ASDPK.ST	60
OVPA G 8	.....A..	.....I.....	.....SN.....	.....A.....	.....K.....	.....G.....	.....T 60
Consensus	HPLRN..D..	YVGNITIGTP	PQEFQVWFDT	GSSDLWVPS.	FC.S.T---C	S.H.RFRH.Q	120 (60)	
OVPA G 4	.....IR.TF.....	.....L.....	.....V.....	.....L.N.S.....	.....I.V.....	L. 117	
OVPA G 7MK.IF.....P.....S.....T.....I.....WN.S.....TLV..K.R.	117
OVPA G 3	.....MK.IF.....	.....S.....	.....A.....	.....I.....	.....N.S.....	.....TRV.....	.....R. 117
OVPA G 6	.....TK.LV.....	.....L.....	.....S.....	.....D.....	.....AIEA.....	.....L.T.....	.....L. 117
OVPA G 1	.....IM.ML.....	.....V.....	.....L.....	.....I.....	.....N.L.P.KRP.	.....KQDK.K.H.	120
OVPA G 5	.....V.M..FL.LA.....	.....P.M...RG.....	.....GEQ.R.....	.....T.PA.....	.....YS.IT.KYWE	117	
OVPA G 9S.YI.ML.....T.....K.....I.....N.....T.PA.....TGA...YR.	116
OVPA G 2AL.MA.....V.....K.R.....I.....K.I.PA.....YT.IT.D.HK	117	
OVPA G 8M.IW.LL.....L.....R.....L.....L.N.S.....AK.VM...RL	117	

FIG. 2A



UVMO:003US
U.S. Serial No. 09/273,164

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Replacement Sheet

Consensus	SSTFR.TNKT	F.I.YG.G.M	KGVAHDTV	IGDLVSTDQP	FGLS..E.GF	...PFDGVLG	180 (120)
ovPAG 4	....T....	.W.T..A.T.	.....	.....I...	....MA.Y.	HGRR.....	177
ovPAG 7	....T....	.W.T..A.T.	.....	.....I...	....MA.Y.	MDRR...I..	177
ovPAG 3	....LA...	.G.M..A.K.	...V....	.....	....VV.S.	EHRQ.....	177
ovPAG 6	....P..R.	.S.T..C.TV	...V....	.....	....TA.HVS	RCT.....	177
ovPAG 1	....F..D.	.R.YF.S.T.	R.F.....	.....	...IFL.SWL	D-I.....I..	179
ovPAG 5	...Y.H.T.P	.E.A..S.RI	..HL.Y..IQ	..N.....	....LV.Y.	NGL.....I..	177
ovPAG 9	....L..R.	.C.T..S.GL	..I.....	..N.....	...TLK.Y.	ENI.....	176
ovPAG 2	....L.RRP	.R.L..S.M.	N..L.Y....	..N.....	....LQGF.	DWA.....	177
ovPAG 8	....Y.L....	.M.F.RV.KI	E...VR....	.....A..T	....IA.T.	ENTTL...I..	177
Consensus	LNYP...S..G	.IPIFDKLN	EGAISEPVFA	FYLSKD.QEG	SVVMFGVDH	.YYKGELNV	240 (180)
ovPAG 4	....RQ.CCR	PT.....	Q.....	.....E...	.....	R.....	237
ovPAG 7	....RQ.CSK	TKW.....	S Q.....	.....E...	.....	T.....SL	237
ovPAG 3	....NL.FSK	T.....	.....	.....E...	.....	S.....K....	237
ovPAG 6	....SI.FWS	T.....	.....	.....G...	.....	R.....	237
ovPAG 1	....KI.FS.	A.....	...F.....	...N..K...	.....	R.....	239
ovPAG 5	....N..IL.	A.....N..K	Q.....I..	....GTVN.	..L.L....K	A.....I	236
ovPAG 9	....NI.FS.	AV.....	...L.....	..F...E...	.....	R..E.....	236
ovPAG 2	.S..SLAVP.	T.....Q	Q.....I..	....TNKEN.	..L.L....	S.H..K...I	237
ovPAG 8	.S..NT.CF.	A.....	.....	...N-----	-----	-----	212

FIG. 2B



Consensus	PL...AGDW.I	VDRISM.R.	VIACS.GC.A	LVDIG.S.I.	GP.RLVDNIQ	KLIGA.P.G.	300 (240)
OVPAG 4	..VK.D..T.	Q.....R.E	.....D..D.	..L...A.F.H	..G...I.D..	.....SE.RDL	297
OVPAG 7	..VK.D..S.	H.....R.E	.....D..D.	..L...A.F.H	..G...I.D..	.....SEQRDF	297
OVPAG 3	..IK....SV	R..S.T.K.E	.....D..R.	.....S.H.Q	..G...I..V.	.....TM.Q.S	297
OVPAG 6	..IP..N.MV	HM....YIE.N	.....A..K.	.....AAF.E	..KSG...M.	..F...R.R.S	297
OVPAG 1	..IHP.E.S.	PL.....R.K	.....G..E.	..G...T..L	..RTV.E...	..H...TQQCF	299
OVPAG 5	..IRV...R.	R..H...KGK	L.G.N.G..E.	.....P..L.N	..T...T...	R....M.L.P	296
OVPAG 9	..TK....IV	RL.....IG.K	.....GD.E.	.....TAF.G	..RK..KK..	.....RRR.N	296
OVPAG 2	..VSGTKS.L.	T.....NGK	..G.EH..E.	.....T..L.H	..AGP.T...	..F.H.V.YDS	297
OVPAG 8	-----	TMK,-----E	.....D..R.	.....S.H.Q	..G.....V.	..H.,TM.Q.S	258
Consensus	KHYVSCSAVN	TLPSIIIFTIN	GINYPVPAGA	YILK.S.G.C	YT.F...RVR	.STE.WVLGD	360 (300)
OVPAG 4	...I.....	.....	.....	.....G.T.H.	..A.RAK...	T...S.....	357
OVPAG 7	...I.....	.....	.....	.....G.T.H.	..A.RAK...	T...S.....	357
OVPAG 3	M...P.....	.....	.....	.....GFT.H.	..A.RAK...	T...S.....	357
OVPAG 6	..Y..P..V..	.....R..	S.....GR.	.....NHR.R.	..T.KENGWS	P...I.I...I...	357
OVPAG 1	EYF.....Y	A....V....	.....P..	..LV.D.R.Q.	..SP.QVN.AN	P.A.N.I...	359
OVPAG 5	.....TI.	I.....	.....TL....	.....T.Q.G.	F.T.KGA..F	KHR.T.....	356
OVPAG 9	-----	-----	-----	-----DDA.R.	S.T.QEN...	L...S.L..N	323
OVPAG 2	EYM...PVIS	I..PV.....	S.D.S...E.	..Q.I.NSL.	LSS.HGDN--	--DK.I...	353
OVPAG 8	M...P.....	.....	.....GR.	.....DFR.R.	..N.KKIA.	TF..Y....E	318

FIG. 2C



383 (323)

380
380
380
380
382
379
346
376
341

Consensus	VFLRLYFSVF	DRGNDRIGLA	PAV
ovPAG 4	.....	.....	..M
ovPAG 7	.....	.....	..M
ovPAG 3	.....	..H.....	R.G
ovPAG 6	.....	..H.....	R..
ovPAG 1	....R.....	.....	R..
ovPAG 5	I.....Y ..	..EHN..A..	Q.R
ovPAG 9	....V.L....	.....	...
ovPAG 2	.....Y ..	..N.....	...
ovPAG 8	P.....	.....	...

FIG. 2D



boPAG	2	4	5	6	7	8	9	10	11	12
Hybrid (d25)	4		1	1	1	5	1	1	1	
Immuno (d25)		19								
RT-PCR (d19)	9					11	3		3	6

FIG. 3



BoPAG:	1	2	3	4	5	6	7	8	9	10	11	12
1	100											
	100											
2	73	100										
	57	100										
3	91	74	100									
	86	58	100									
4	88	73	87	100								
	76	55	73	100								
5	86	60	86	85	100							
	75	61	74	76	100							
6	89	73	88	89	84	100						
	80	57	78	76	70	100						
7	87	73	87	86	85	89	100					
	79	56	78	71	72	77	100					
8	68	68	67	67	70	69	71	100				
	53	55	51	49	54	53	53	100				
9	87	74	88	85	85	87	86	68	100			
	77	59	78	68	74	74	71	53	100			
10	70	72	69	68	71	70	68	71	69	100		
	56	50	55	53	58	57	53	55	57	100		
11	74	77	73	73	76	73	75	72	73	72	100	
	59	62	58	56	62	59	59	56	57	57	100	
12	75	90	75	74	77	75	74	70	75	73	79	100
	61	83	60	58	63	59	58	56	60	60	64	100

FIG. 4

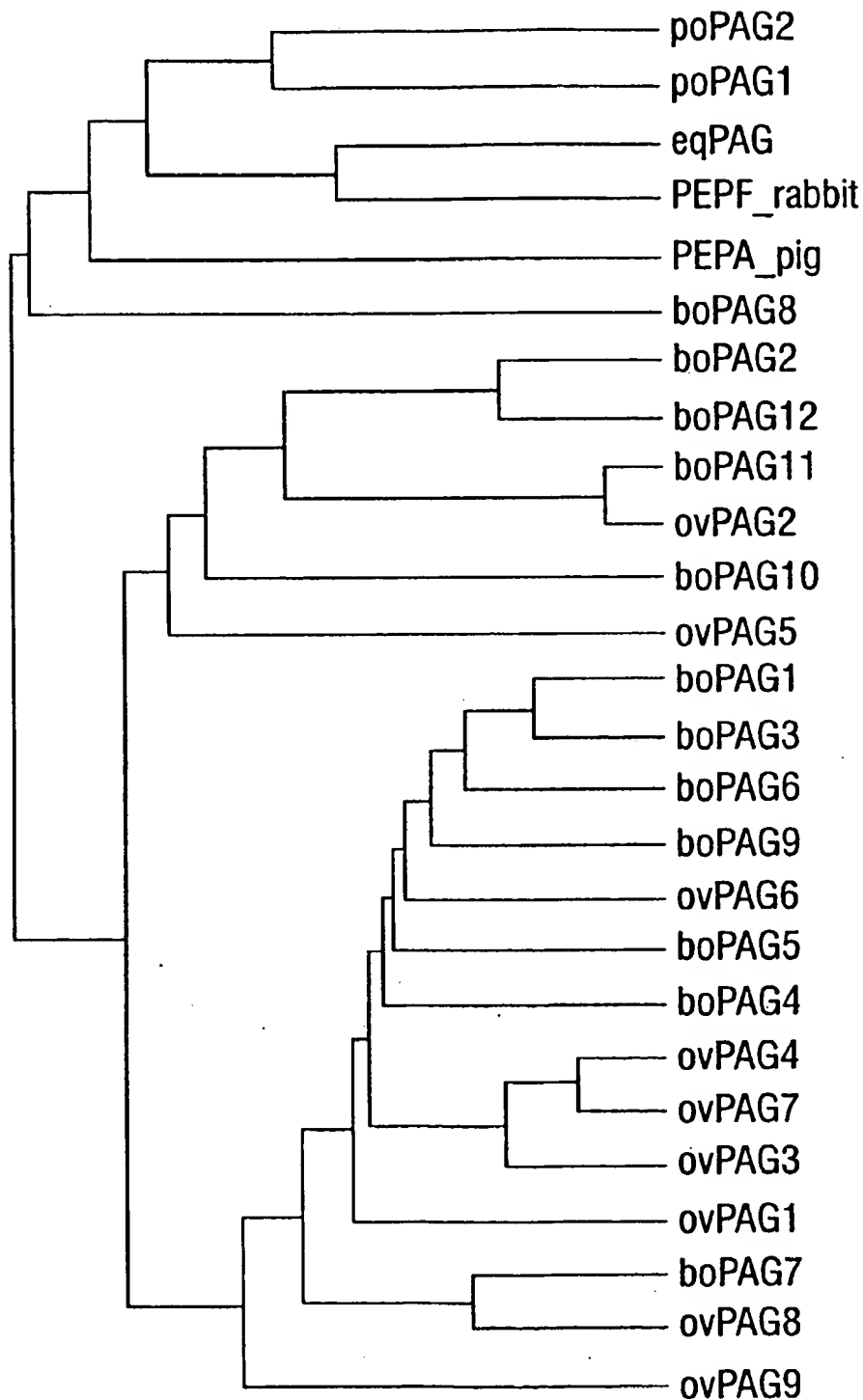


FIG. 5

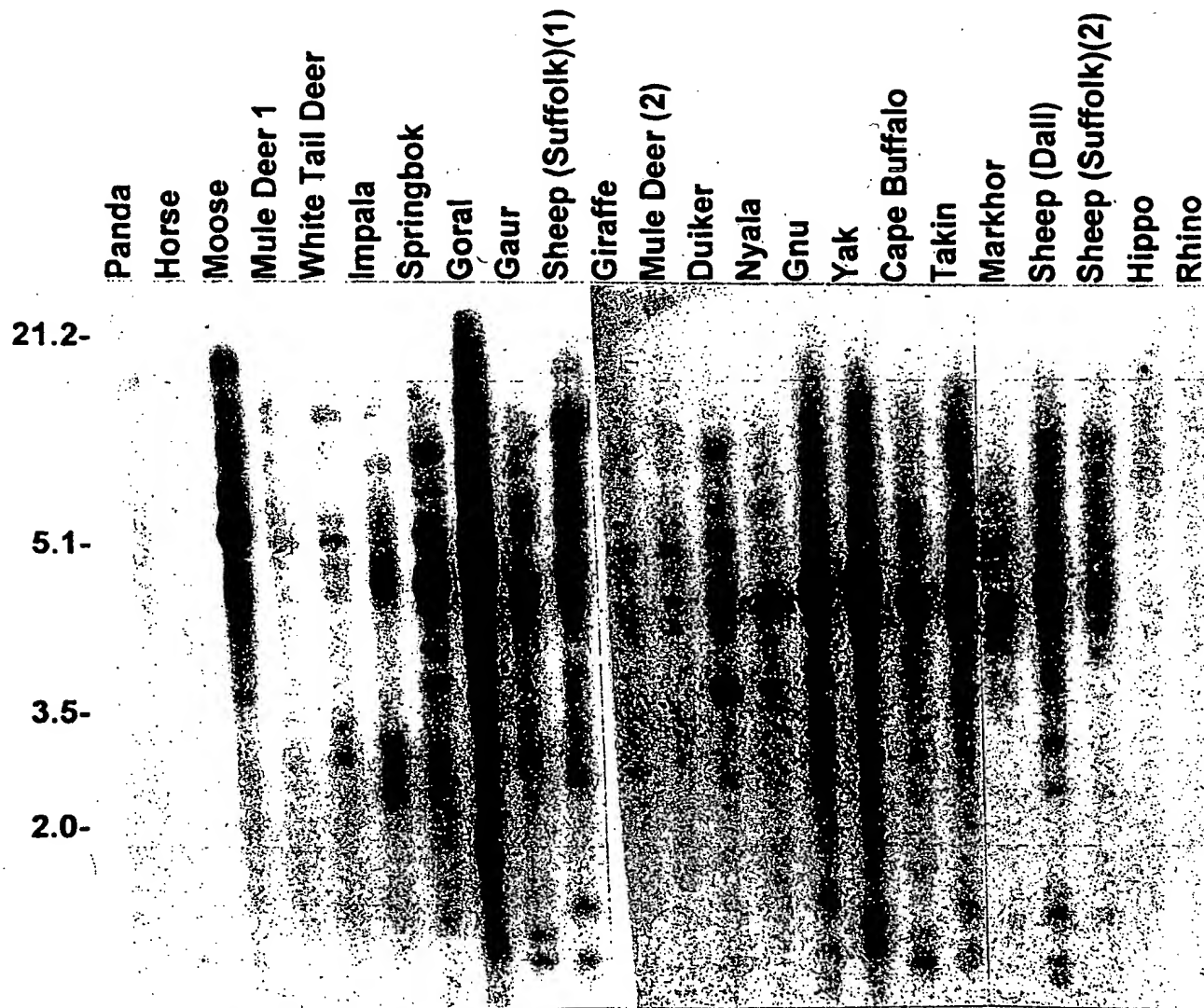


FIG. 6